Results for sample technician2014 test paper

Your answers are marked like this:

✔ **A. You got this question right, this is your correct answer.**

✘ *A. You got this question wrong, this is your incorrect answer.*

✔ *A. You got this question wrong, this is the correct answer.*

✔ **A. You didnt answer this question but this would be the correct answer.**

Subelement T0

1: T0A03
What is connected to the green wire in a three-wire electrical AC plug?
A. Neutral
B. Hot
✔ **C. Safety ground**
D. The white wire

2: T0B05
What is the purpose of a gin pole?
A. To temporarily replace guy wires
B. To be used in place of a safety harness
✔ **C. To lift tower sections or antennas**
D. To provide a temporary ground

3: T0C06
Which of the following is an acceptable method to determine that your station complies with FCC RF exposure regulations?
A. By calculation based on FCC OET Bulletin 65
B. By calculation based on computer modeling
C. By measurement of field strength using calibrated equipment
✔ **D. All of these choices are correct**

Subelement T1

4: T1A07
What is the FCC Part 97 definition of telemetry?

A. An information bulletin issued by the FCC
B. A one-way transmission to initiate, modify or terminate functions of a device at a distance
✔ **C. A one-way transmission of measurements at a distance from the measuring instrument**
D. An information bulletin from a VEC

5: T1B11
What emission modes are permitted in the mode-restricted sub-bands at 50.0 to 50.1 MHz and 144.0 to 144.1 MHz?
✔ **A. CW only**
B. CW and RTTY
C. SSB only
D. CW and SSB

6: T1C11
If your license has expired and is still within the allowable grace period, may you continue to operate a transmitter on amateur service frequencies?
✔ **A. No, transmitting is not allowed until the FCC license database shows that the license has been renewed**
B. Yes, but only if you identify using the suffix GP
C. Yes, but only during authorized nets
D. Yes, for up to two years

7: T1D07
What types of amateur stations can automatically retransmit the signals of other amateur stations?
A. Auxiliary, beacon, or Earth stations
✔ **B. Auxiliary, repeater, or space stations**
C. Beacon, repeater, or space stations
D. Earth, repeater, or space stations

8: T1E05
What is an amateur station control point?
A. The location of the station s transmitting antenna
B. The location of the station transmitting apparatus
✔ **C. The location at which the control operator function is performed**
D. The mailing address of the station licensee

9: T1F06
Which of the following formats of a self-assigned indicator is acceptable when identifying using a phone transmission?
A. KL7CC stroke W3
B. KL7CC slant W3
C. KL7CC slash W3
✔ **D. All of these choices are correct**

Subelement T2

10: T2A01

What is the most common repeater frequency offset in the 2 meter band?

A. Plus 500 kHz

✔ **B. Plus or minus 600 kHz**

C. Minus 500 kHz

D. Only plus 600 kHz

11: T2B07

What could cause your FM signal to interfere with stations on nearby frequencies?

✔ **A. Microphone gain too high, causing over-deviation**

xB. SWR too high

C. Incorrect CTCSS Tone

D. All of these choices are correct

12: T2C07

Which of the following is an accepted practice for an amateur operator who has checked into an emergency traffic net?

A. Provided that the frequency is quiet, announce the station call sign and location every 5 minutes

B. Move 5 kHz away from the net's frequency and use high power to ask other hams to keep clear of the net frequency

✔ **C. Remain on frequency without transmitting until asked to do so by the net control station**

D. All of the choices are correct

Subelement T3

13: T3A05

When using a directional antenna, how might your station be able to access a distant repeater if buildings or obstructions are blocking the direct line of sight path?

A. Change from vertical to horizontal polarization

✔ **B. Try to find a path that reflects signals to the repeater**

C. Try the long path

D. Increase the antenna SWR

14: T3B02

What property of a radio wave is used to describe its polarization?

✔ **A. The orientation of the electric field**

B. The orientation of the magnetic field

C. The ratio of the energy in the magnetic field to the energy in the electric field

D. The ratio of the velocity to the wavelength

15: T3C09

What is generally the best time for long-distance 10 meter band propagation via the F layer?

✔ **A. From dawn to shortly after sunset during periods of high sunspot activity**

B. From shortly after sunset to dawn during periods of high sunspot activity

xC. From dawn to shortly after sunset during periods of low sunspot activity

D. From shortly after sunset to dawn during periods of low sunspot activity

Subelement T4

16: T4A08

Which type of conductor is best to use for RF grounding?

A. Round stranded wire

B. Round copper-clad steel wire

C. Twisted-pair cable

✔ **D. Flat strap**

17: T4B03

What is the purpose of the squelch control on a transceiver?

A. To set the highest level of volume desired

B. To set the transmitter power level

C. To adjust the automatic gain control

✔ **D. To mute receiver output noise when no signal is being received**

Subelement T5

18: T5A10

Which term describes the rate at which electrical energy is used?

A. Resistance

B. Current

✔ **C. Power**

D. Voltage

19: T5B03

How many volts are equal to one kilovolt?

A. One one-thousandth of a volt

B. One hundred volts

✔ **C. One thousand volts**

D. One million volts

20: T5C08

What is the formula used to calculate electrical power in a DC circuit?

✔ **A. Power (P) equals voltage (E) multiplied by current (I)**

B. Power (P) equals voltage (E) divided by current (I)
C. Power (P) equals voltage (E) minus current (I)
D. Power (P) equals voltage (E) plus current (I)

21: T5D02
What formula is used to calculate voltage in a circuit?
✔ **A. Voltage (E) equals current (I) multiplied by resistance (R)**
B. Voltage (E) equals current (I) divided by resistance (R)
C. Voltage (E) equals current (I) added to resistance (R)
D. Voltage (E) equals current (I) minus resistance (R)

Subelement T6

22: T6A09
What electrical component is used to protect other circuit components from current overloads?
✔ **A. Fuse**
B. Capacitor
C. Inductor
D. All of these choices are correct

23: T6B09
What are the names of the two electrodes of a diode?
A. Plus and minus
B. Source and drain
✔ **C. Anode and cathode**
D. Gate and base

24: T6C09
What is component 4 in figure T2?
A. Variable inductor
B. Double-pole switch
C. Potentiometer
✔ **D. Transformer**

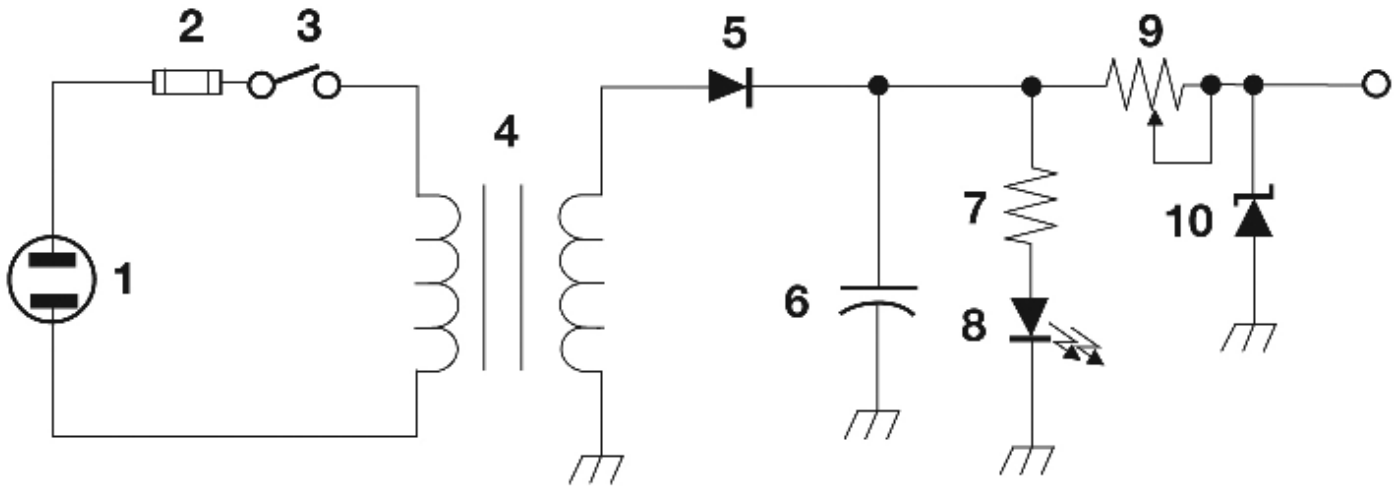

Figure T-2

25: T6D03

What type of switch is represented by component 3 in figure T2?

✔ **A. Single-pole single-throw**

B. Single-pole double-throw

C. Double-pole single-throw

D. Double-pole double-throw

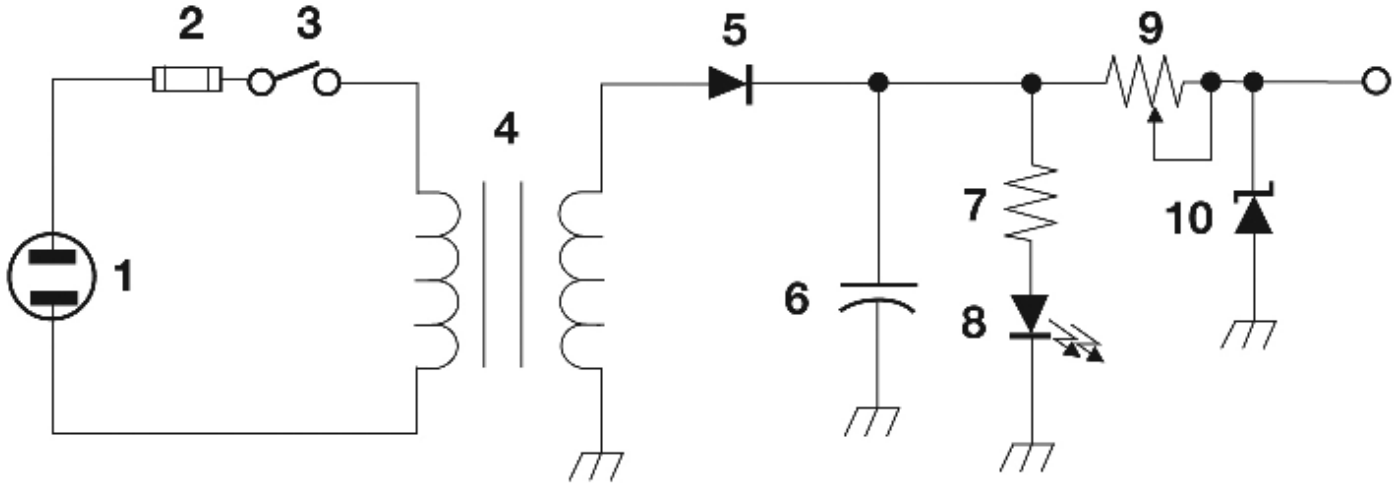

Figure T-2

Subelement T7

26: T7A10

What device increases the low-power output from a handheld transceiver?

A. A voltage divider

✔ **B. An RF power amplifier**
C. An impedance network
D. All of these choices are correct

27: T7B05
How can overload of a non-amateur radio or TV receiver by an amateur signal be reduced or eliminated?
✔ **A. Block the amateur signal with a filter at the antenna input of the affected receiver**
B. Block the interfering signal with a filter on the amateur transmitter
C. Switch the transmitter from FM to SSB
D. Switch the transmitter to a narrow-band mode

28: T7C03
What, in general terms, is standing wave ratio (SWR)?
✔ **A. A measure of how well a load is matched to a transmission line**
B. The ratio of high to low impedance in a feed line
C. The transmitter efficiency ratio
D. An indication of the quality of your station s ground connection

29: T7D06
Which of the following might damage a multimeter?
A. Measuring a voltage too small for the chosen scale
B. Leaving the meter in the milliamps position overnight
✔ **C. Attempting to measure voltage when using the resistance setting**
D. Not allowing it to warm up properly

Subelement T8

30: T8A02
What type of modulation is most commonly used for VHF packet radio transmissions?
✔ **A. FM**
B. SSB
C. AM
D. Spread Spectrum

31: T8B04
Which amateur stations may make contact with an amateur station on the International Space Station using 2 meter and 70 cm band amateur radio frequencies?
A. Only members of amateur radio clubs at NASA facilities
✔ **B. Any amateur holding a Technician or higher class license**
C. Only the astronaut's family members who are hams
D. You cannot talk to the ISS on amateur radio frequencies

32: T8C08

What is required in place of on-air station identification when sending signals to a radio control model using amateur frequencies?

A. Voice identification must be transmitted every 10 minutes
B. Morse code ID must be sent once per hour
✔ **C. A label indicating the licensee s name, call sign and address must be affixed to the transmitter**
D. A flag must be affixed to the transmitter antenna with the station call sign in 1 inch high letters or larger

33: T8D03

Which of the following devices provides data to the transmitter when sending automatic position reports from a mobile amateur radio station?

A. The vehicle speedometer
B. A WWV receiver
C. A connection to a broadcast FM sub-carrier receiver
✔ **D. A Global Positioning System receiver**

Subelement T9

34: T9A05

How would you change a dipole antenna to make it resonant on a higher frequency?

A. Lengthen it
B. Insert coils in series with radiating wires
✔ **C. Shorten it**
D. Add capacitive loading to the ends of the radiating wires

35: T9B09

What might cause erratic changes in SWR readings?

A. The transmitter is being modulated
✔ **B. A loose connection in an antenna or a feed line**
C. The transmitter is being over-modulated
D. Interference from other stations is distorting your signal

Results:
You scored 33 correct answers and 2 incorrect answers from a total of 35.

You would have passed the exam! Congratulations!

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